

Amendments to the Specification:

Please replace the paragraph beginning on page 9, line 26 with the following rewritten paragraph:

As described above, when the reticle stage 2 and the wafer stage 3 are moved, the stationary parts of the respective stages are maintained motionless. However, mechanical inclination resonance exists in the structure that maintains the projection optical system PL fixed to the lens barrel holding plate 7 via the flange 34, and this resonance varies depending on the material rigidity and shape of the flange 34. Furthermore, although holding the flange 34 by three supports prevents distortion of the projection optical system PL from being generated, the mechanical inclination resonance caused by that three-support structure is exasperated because the length of the projection optical system 34~~PL~~ in the Z direction is long. In particular, like the flange 34 in this embodiment, when a thin part such as the through holes 34a and/or the notches 34b exists, resonance frequency decreases and oscillation amplitude becomes large. Oscillation amplitude at a given resonance frequency depends on the shape or the like, but distortion (i.e., bending) and contraction/expansion (which causes lateral displacement) occur at a position where the strength of the flange is weak, i.e., in the vicinity of the above-mentioned holes and notches. Because of this, in this embodiment, displacement generated in the projection optical system PL due to the above-mentioned distortion and contraction/expansion are controlled by the acceleration sensor 38, the piezoelectric elements 36, and the driving device 37.